DEPARTMENT OF TRANSPORTATION

DIVISION OF ENGINEERING SERVICES Office of Structural Materials Quality Assurance and Source Inspection

Bay Area Branch 690 Walnut Ave.St. 150 Vallejo, CA 94592-1133 (707) 649-5453 (707) 649-5493



Contract #: 04-0120F4

Cty: SF/ALA Rte: 80 PM: 13.2/13.9

File #: 69.28

WELDING INSPECTION REPORT

Resident Engineer: Pursell, Gary **Report No:** WIR-010730 Address: 333 Burma Road **Date Inspected:** 04-Dec-2009

City: Oakland, CA 94607

Project Name: SAS Superstructure **OSM Arrival Time:** 645 **OSM Departure Time:** 1845 **Prime Contractor:** American Bridge/Fluor Enterprises, a JV

Contractor: Zhenhua Port Machinery Company, Ltd (ZPMC), Changxing Island **Location:** Shanghai, China

CWI Name: CWI Present: Yes Li Yang No **Inspected CWI report:** Yes N/A **Rod Oven in Use:** Yes No No N/A N/A **Electrode to specification:** Yes No Weld Procedures Followed: Yes No N/A N/A **Qualified Welders:** Yes No **Verified Joint Fit-up:** Yes No N/A N/A N/A **Approved Drawings:** Yes No **Approved WPS:** Yes No Yes N/A **Delayed / Cancelled:** No

Bridge No: 34-0006 **Component: OBG COMPONENT**

Summary of Items Observed:

On this date Caltrans OSM Quality Assurance(QA) Inspector, Subhasis Bera was present during the times noted above for observations relative to the work being performed.

Trial Assembly area In process Inspection

SMAW in the 4G position of the OBG segment 5CW at deck plate to counter weight Side stiffener plate, weld No. OBW5G-007. The welder is identified as #066258. ZPMC QC is identified as Mr.Zhang Hai Tao. The welding variables recorded by QC appear to comply with WPS- 345-SMAW-4G(4F)-REPAIR-1 and repair procedure B-WR8590.

FCAW in the 1G position of the splice joint at deck plate to deck plate OBG segment between 6BE & 6CE, weld No. OBE6A-003. The welders are identified as #220067 and #220069. ZPMC QC is identified as Mr.Wang Li Yang. The welding variables recorded by QC appear to comply with WPS- B-T-223(2)IT-2.

FCAW in the 1G position of the splice joint at bottom plate to bottom plate OBG segment between 6BE & 6CE, weld No. OBE6C-004. The welders are identified as #220063 and #053742. ZPMC QC is identified as Mr.Wang Li Yang. The welding variables recorded by QC appear to comply with WPS-B-T-2231-F.

At Ship Area

Witness of Magnetic Particle Testing

WELDING INSPECTION REPORT

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This QA inspector was Witnessing of Magnetic Particle Testing which was carried by ABF QC Technicians at side Plate to Deck plate at crass beamCB2. This inspector observed the ABF QC did not find any indication on the inspected area.

The weld designations reviewed as follows:

CB204A-002-001,002 and 003 (East side) CB204A-002-013,014and 015 (West Side)

Ultrasonic Testing

QA Verification UT performed after repair on portion of corner joint deck plate to side plate of crass beamCB2. This Inspection was performed after ABF UT Inspectors performed UT of this joint. The result were recorded onto a data sheet that Caltrans QA and ABF QA have jointly filled out on this date.

The Weld Designations are as follows

CB204A-002-001,002 and 003 (East side) CB204A-002-013,014and 015 (West Side)

During a random visual inspection of segment 6BE and 6CE the Quality Assurance Inspector was observed excessive root openings on weld joint OBE6A-003 Splice weld Between 6BE (deck plate) to 6CE (Deck plate). According to approve drawing weld details and the approved WPS, the tolerance for root opening is 10+2,-2 mm maximum. The recorded root opening was 17mm.

This QA Inspector generated an incident report for this date.

Unless otherwise noted, all work observed on this date appeared to generally comply with applicable contract documents.

Summary of Conversations:

No relevant conversations

Comments

This report is for the purpose of determining conformance with the contract documents and is not for the purpose of making repair or fit for purpose recommendations. Should you require recommendations concerning repairs or remedial efforts please contact Eric Tsang 150-0042-2372, who represents the Office of Structural Materials for your project.

Inspected By:	Bera, Subhasis	Quality Assurance Inspector
Reviewed By:	Patterson,Rodney	QA Reviewer